INFECTION CONTROL

IN AMBULATORY CARE

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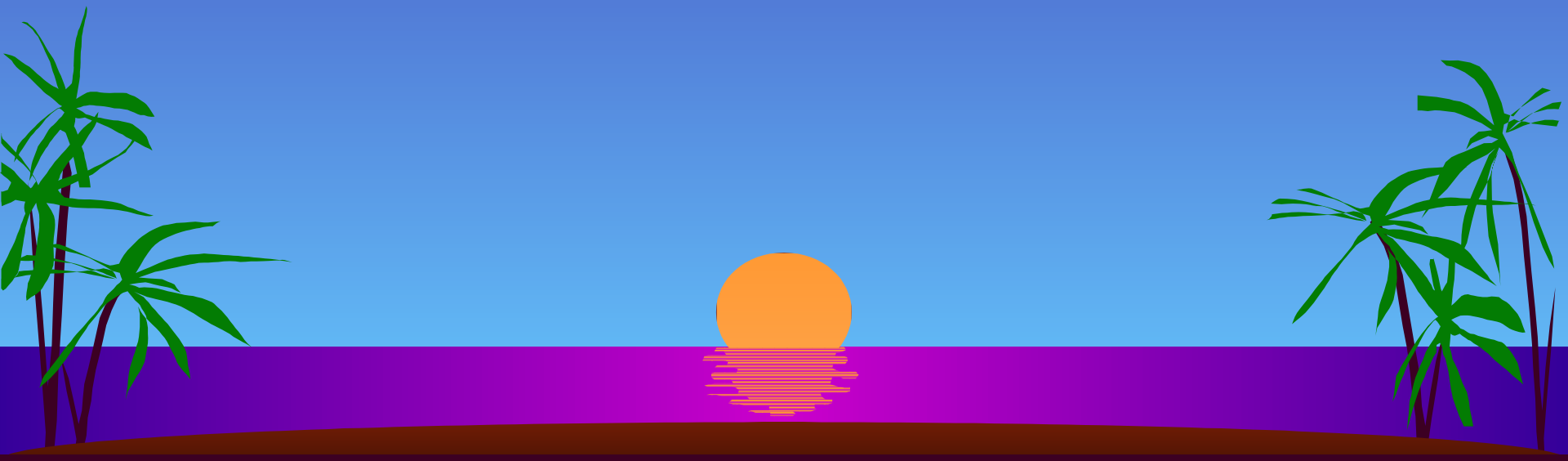
DEFINITION OF AMBULATORY CARE

- Medical Care Outside Of Hospitals
- Outpatient Settings
- Facilities In Which Patients Reside For Less Than 24 Hours



EXAMPLES OF AMBULATORY CARE

- Ambulatory Treatment Centers
- Branch Medical Clinics
- Outpatient Surgical Centers
- Radiology and Imaging Clinics
- Dialysis Centers
- Physician Owned Clinics
- Ships

AMBULATORY CARE IS GROWING…

- Proportion of care that is given in the outpatient setting is increasing rapidly.
- Innovative medical technologies have allowed many diagnostic and therapeutic procedures to be done in the outpatient setting.

GROWING…

- 80-90% of all cancer care is delivered in outpatient settings.
- Third party payers are insisting that much of medical care be delivered outside of hospitals.
- Patients are being discharged early from hospitals.

GROWING!

- Increase in home care.
- Increase in ambulatory surgery by 30% in fiscal years 91-92
- Now increased by even more...eye surgery etc.

GOAL

- Infection control practitioners must develop programs that address infection control issues across the spectrum of care from the acute care setting to patient's homes.

CHALLENGES

- New standards for Ambulatory Care from JCAHO starting in 2000. Jan 2004 is CAMAC available online.
- CDC and OSHA mandate that healthcare workers in the outpatient setting incorporate the BBP standard and the TB guidelines into their practices.

CHALLENGES

- JCAHO requires that the Infection Control policies and procedures that are applied in the inpatient and outpatient settings are consistent in intent and application.
- Risk of infections in outpatient settings may be higher than previously thought.

? HIGHER RISK

- Few studies.
- Problems in surveillance.
- Recently, experts and the CDC have recommended programs for surveillance systems in ambulatory care.

? HIGHER RISK

- Now APIC has comprehensive national guidelines for the practice of infection control in ambulatory care
- Lack of standardized methodologies for data collection

COMMON PROBLEMS

- Population - difficult to define
  -patients, families, staff members, visitors
- Areas of exposure - large open areas where people congregate: waiting rooms. Who's where, when????
- Many clinics only have 1 entrance and 1 waiting area

COMMON PROBLEMS

- Busy clinics - numerous patients: HCWs may have brief contact with them
- Number of staff and equipment limited
- May not wash hands or sterilize equipment properly
- Little time for formal education

COMMON PROBLEMS

- IV therapy - difficult to determine catheter related BSI
- Short term therapy and patients may follow up elsewhere
- Staff turnover - try to keep up!!
- Few follow up programs - almost impossible in most clinics

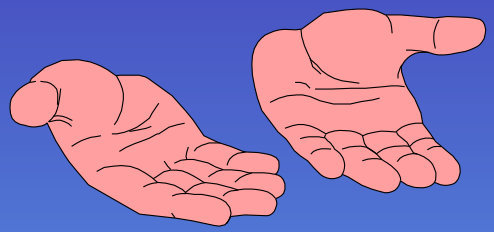
COMMON PROBLEMS

- Lack of Knowledge - Telephone calls and registration handled by personnel with the LEAST medical knowledge
- Contagious diseases might not be identified and triaged appropriately nor quickly enough to prevent a widespread exposure

COMMON PROBLEMS

- Isolation - Few Outpatient Facilities have Negative Air Pressure Rooms
- Air is often recirculated without filtration
- Inadequate Space - Patients may wait and Staff may work in confined spaces
- May not be enough space to maintain separate clean and dirty areas

INFECTION CONTROL IS EVERYONE'S RESPONSIBILITY



NOSOCOMIAL

Any Infection that occurs in association with Healthcare regardless of site.

EXAMPLES

- Exposure to Bloodborne Pathogens (BBP)...HIV, HBV, HCV
- Respiratory Infections - Airborne, Droplet Contamination
- Contact (MRSA)
- Infections related to equipment

BLOODBORNE PATHOGENS

- HCWs in the Ambulatory Care setting are at risk for exposures to blood and body fluid and thus to bloodborne pathogens: HIV, HBV, HCV etc.
- Sharps and Mucous Membrane Exposures can be prevented
- Know your BBP Exposure control Plan!

BBPs

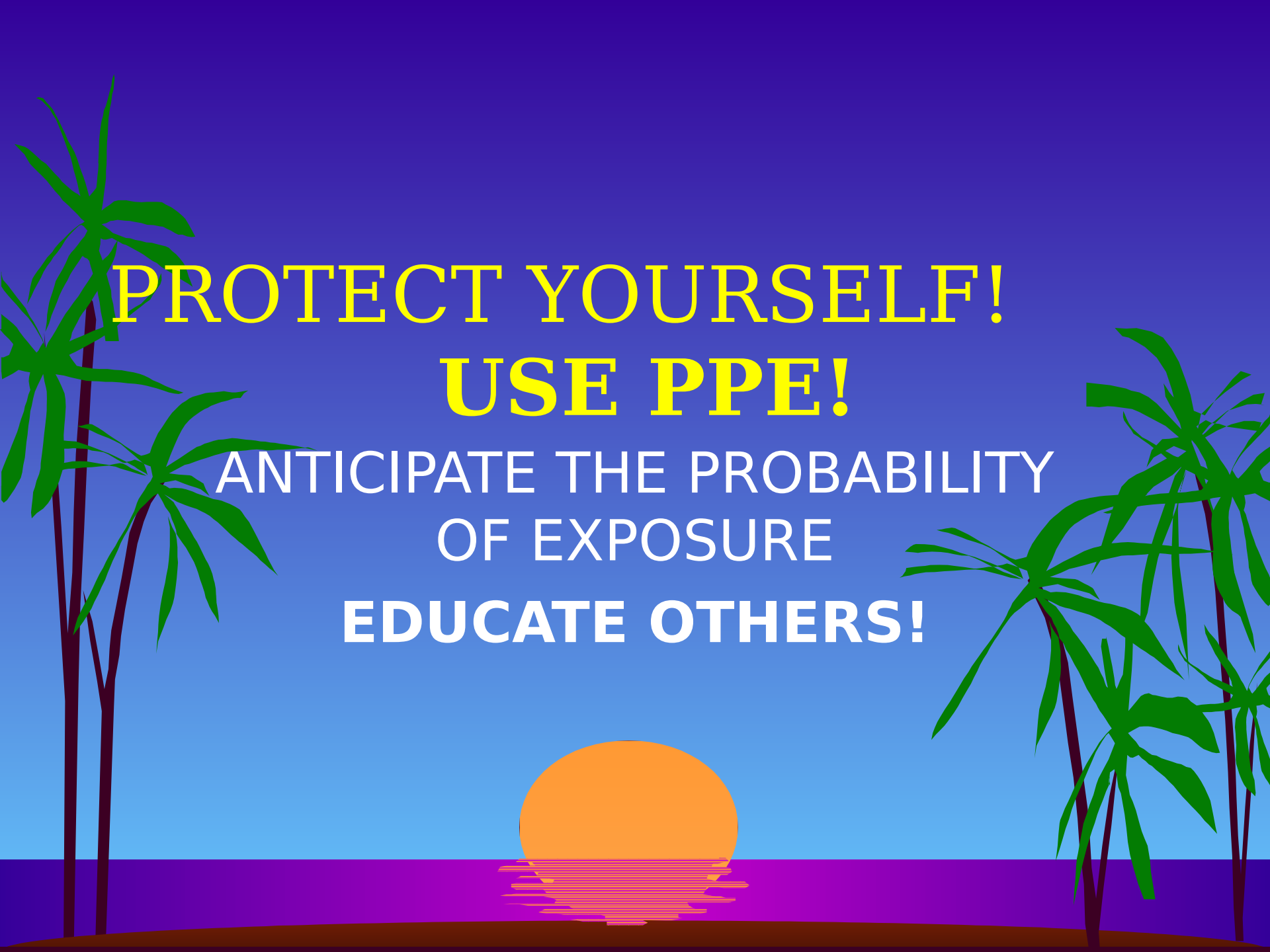
- OSHA BBP Standard specifies that all Healthcare institutions must implement policies and procedures to protect HCWs from exposure to BBP
- Often, HCWs do not comply with precautions designed to protect them from exposures

BBPs

- Sharps Exposures - can occur from recapping needles and improper handling of used needles and syringes including not using proper sharps containers. Use needle safe devices!
- Mucous Membrane Exposures - can occur when there is a failure to utilize Personal Protective Equipment (PPE)

PPE

- Gloves
- Masks
- Face Shields
- Goggles
- Gowns
- Shoe Covers


PROTECT YOURSELF!
USE PPE!
ANTICIPATE THE PROBABILITY OF EXPOSURE
EDUCATE OTHERS!

RESPIRATORY - AIRBORNE AND DROPLET NUCLEI

- Enhanced likelihood of transmission of respiratory pathogens in the Outpatient setting due to:
- Many people congregate in waiting rooms.
- Many more will come to Clinics during endemic or epidemic periods of viral infection. (Flu, Varicella)

RESPIRATORY

- ? inadequate Triage systems
- Tricare may book appointments
- Air exchange in the building is often low and the air is often recirculated

TB

- Airborne Droplet Nuclei are aerosolized when a patient with active TB coughs or sneezes.
- OSHA requires a TB Exposure Control Plan.
- Early identification of potentially infected patients is most important!

TB

- Suspected cases should be immediately separated from other patients and staff
- Isolation rooms with negative air pressure, if possible
- Suspected TB patients should be given a mask to wear and instructed to cough or sneeze with mouth and nose covered. Hand them a tissue!

TB

- HCWs caring for the patient should wear N-95 Respirators
- HCW’s should have PPDs done annually
- Many outbreaks of TB have been reported in prison settings, during long airline flights, in homeless shelters and among regular bar patrons.

MEASLES, RUBELLA, VARICELLA

- Early identification
- Expedient Triage Procedures
- Early isolation - if possible, air vented to the outside
- Surgical mask on suspected patients
- Examine, treat and discharge the patient quickly

MEASLES, RUBELLA, VARICELLA

- Decontaminate the room
- Immunize all HCWs if susceptible
- Varicella can also be spread by contact
- If possible, separate waiting areas for well and sick children

CONTACT INFECTIONS

- Can also occur in the Outpatient setting
- Conjunctivitis
- VRE
- Varicella
- MRSA

CONJUNCTIVITIS

- Both Bacterial and viral
- Adenoviruses are most important causal agents in endemic and epidemic cases
- In Ambulatory setting, most outbreaks are reported from Eye Care Clinics
- Transmission by **hands of HCWs**

CONJUNCTIVITIS

- Transmission by way of pneumotonometers, other equipment and contaminated solutions.
- Adenoviruses can persist in the environment over l month and are not killed by ethanol/alcohol
- Use HANDWASHING and gloves to prevent transmission

VRE

- A concern for both Inpatient and Outpatient facilities
- Spread by hands of personnel, contaminated equipment and environmental surfaces
- Contact isolation is a must

VRE

- Recent Media reports about “SUPER BUGS” and Antibiotic resistance has heightened the Public’s awareness and has increased concern.

INFECTIONS RELATED TO EQUIPMENT

- Intravascular devices
- Endoscopy
- Disposable devices
- Surgical Equipment
- Multidose Vials
- Physical Therapy

INTRAVASCULAR DEVICES

- Studies need to be done - so far, incidence is low
- Short term therapy in Clinics, Chemotherapy is a little longer
- Surveillance is difficult
- Use gloves, sterile technique and good handwashing.

ENDOSCOPY

- Approximately 11 million endoscopic procedures per year, many in the Outpatient setting
- Infections usually due to contaminated equipment
- High level disinfection recommended by the CDC

ENDOSCOPY

- Proper cleaning procedures must be followed.
- Proper maintenance of equipment
- Follow basic Infection Control precautions.

DISPOSABLE DEVICES

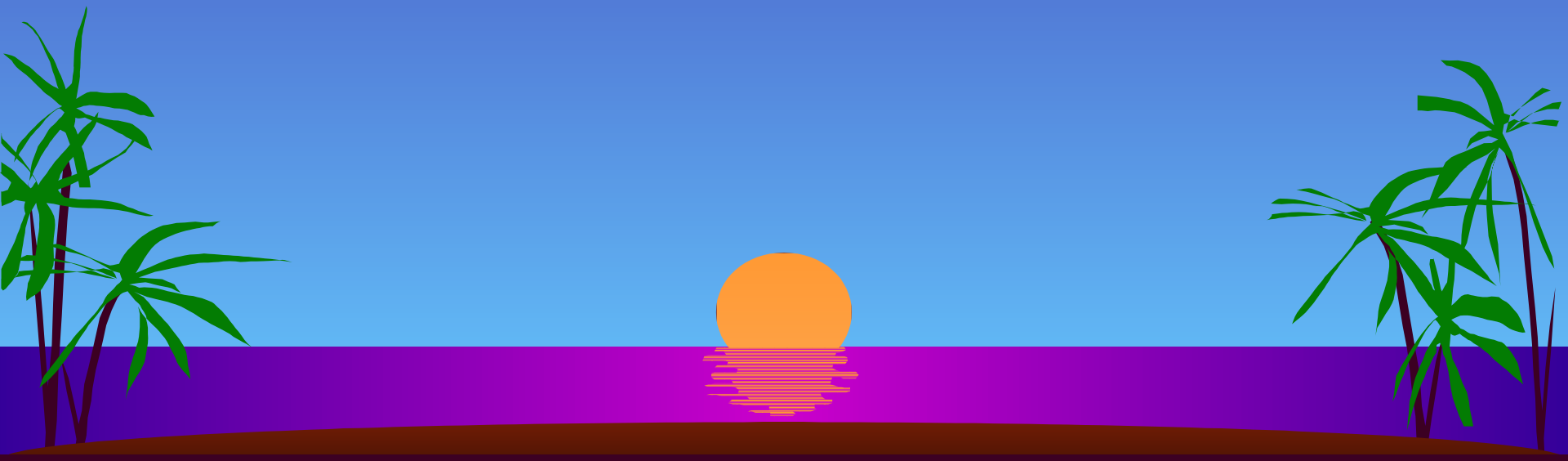
- Due to cost containment many Healthcare facilities reprocess and reuse single use equipment
- Syringes, plastic vaginal speculums, oral airways and plastic mouthpieces for pulmonary function testing are examples of items to be discarded!

DISPOSABLE DEVICES

- Infection Control Practitioners must be on the lookout for this type of practice and ensure that these items are cleaned, disinfected or sterilized adequately and retain their integrity and function

SURGICAL EQUIPMENT

- Infections arise from improperly cleaned, disinfected or sterilized equipment
- Beware Flash Sterilization

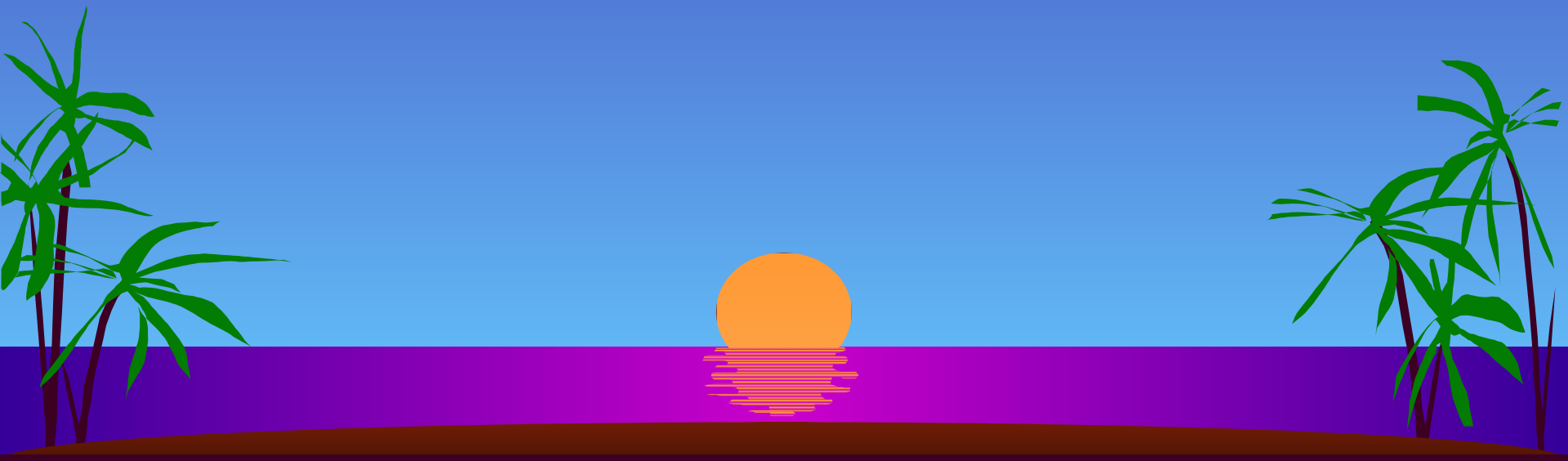


MULTIDOSE VIALS

- Actual risk of infection associated with multidose vials remains unknown. If used properly, the risks appear to be low
- Studies indicate that up to 27% of used multidose vials are contaminated with bacterial pathogens

MULTIDOSE VIALS

- Use appropriate infection control precautions and procedures
- Education of staff is essential



PHYSICAL THERAPY

- Infections usually associated with hydrotherapy
- All the elements necessary for transmission of pathogens exist in Physical Therapy Centers
- APIC has published recommendations
- Cleaning , Handwashing and Education are paramount

OUTBREAKS

- Can occur in the Outpatient setting:
- Inadequate disinfection and sterilization
- Absent or inappropriate use of barrier precautions
- Absent or inappropriate work restrictions for infected HCWs
- Inadequate handwashing

OUTBREAKS

- Personnel not familiar with Infection Control precautions and recommendations
- Numerous patients in Outpatient settings
- Brief contact with patients
- Common waiting areas

WHAT TO DO??

- Infection Control Practitioners should assess their own institutions!
- Each facility has its own individual characteristics
- Identify problem areas
- Tailor your Infection Control Programs to your needs

ASSESS YOUR FACILITY

- What type of Outpatient facility?
- What types of patients?
- What types of procedures?
- What types of infectious diseases are diagnosed and treated?
- What resources are available for infection control?
- Support from Administration?

REVIEW POLICIES AND PROCEDURES

- Conduct walking rounds
- Does the area have policies and procedures and engineering controls to prevent transmission of BBPs?
- Does the area have appropriate screening, triage, isolation protocols and engineering controls to prevent the spread of airborne agents?

HANDWASHING

Wash hands with soap and water when hands are visibly dirty or contaminated.

Alcohol-based handrubs are recommended for routinely decontaminating hands if they are not visibly soiled.

WALKING ROUNDS

- Does the area have the appropriate screening, triage, isolation / precautions for patients who may be infected or colonized with other infectious agents?
- Does the area have appropriate exposure management plans for BBPs, TB, Airborne and Contact diseases including lice and scabies?

WALKING ROUNDS

- Does the staff understand and practice principles of asepsis, including the handling of multi dose vials?
- Are infection control policies and procedures consistent with intent and application? Follow JCAHO guidelines.

WALKING ROUNDS

- Do Educational Programs include teaching your staff the precautions for TB, BBPs, and other infectious agents?

PRIORITIES

- Ensure that staff complies with the CDC TB Exposure Control Plan and the OSHA BBP Standard
- Develop screening protocols for other airborne diseases to prevent unnecessary exposure
- Ensure that staff and patients have been vaccinated appropriately

PRIORITIES

- Ensure that all staff practice good handwashing technique, aseptic technique when handling multi dose vials and that protocols and practices for cleaning, disinfection and sterilization are appropriate
- Implement and maintain the use of Universal/Standard precautions

DUTIES OF INFECTION CONTROL COORDINATORS

- Nosocomial Infection Surveillance
- Reporting of staff sharps/mucous membrane exposures. (Epinet)
- At least Quarterly Inspections of your facility. Monitor handwashing.
- Ensuring Clinic cleanliness.
- Attending IC Committee quarterly meetings and reporting your findings.

DUTIES

- Stay current
- Continuing education for yourself
- Education for your Clinic - includes basic infection control principles and practices, handwashing, BBPs, TB, fit testing of TB Respirators, management of Regulated Medical Waste and linen at least yearly.

DUTIES

- **Stay prepared for JCAHO and IG inspections. Follow their standards!**
- **Keep Records on all that you do!**
- **Report to the Quality Manager in your Clinic**
- **Problematic reporting at the ICC meetings**
- **Use your resources!**

QUOTE

- “Infection Control personnel who begin to address infection control needs in the ambulatory setting have not only a huge task to accomplish but also an enormous opportunity. Those who take on this challenge will help to improve the quality of patients’ care and the safety of healthcare workers.”

QUOTE

- “They will help their institutions to survive in this extraordinarily competitive environment. In addition, those intrepid persons will help shape the course of healthcare over the next decade.”
  Article: Practical Healthcare Epidemiology

QUESTIONS ???